

## INTRODUCTORY LECTURE

ADDRESSED TO THE CLASS

OF THE

KENTUCKY

School of Medicine,

SESSION 1853-54,

BY

H. M. BULLITT, M. D.,

PROFESSOR OF PHYSIOLOGY AND PATHOLOGY.



LOUISVILLE:

COURIER MAMMOTH STEAM PRINTING ESTABLISHMENT,

1853.

## CORRESPONDENCE:

---

Louisville, Ky. November 3rd., 1853.

PROFESSOR H. M. BULLITT,

DEAR SIR;—By the unanimous vote of the Students of the Kentucky School of Medicine, at a called meeting, we, the undersigned, were appointed a committee to solicit a copy of the Introductory Lecture delivered by you on the 1st inst., for publication. By conferring the above favour you will place us under many obligations.

Respectfully yours, &c.,

HENDERSON P. CRUTE, Miss.	}	COMMITTEE
HENRY H. KALFUS, Ky.		
B. G. MOORE, Ala.,		
JAMES SYMPSON, Ky.,		
F. MUGUET, France.		
J. H. GIRDNER, Ia.		
LEONIDAS N. GRAVES, Texas.		
B. MASWORTH, Illinois.		
E. H. LUCKETT, Mo.,		

J. OTIS, *Secretary*.

JAMES M. BODINE, *CHAIRMAN*.

---

Louisville, Ky., November 7th, 1853.

GENTLEMEN:

In compliance with the wish of the class of the Kentucky School of Medicine, as communicated in your note of the 3rd inst., I place at your disposal the manuscript of my introductory lecture.

I fear it is scarcely worthy of the publicity which you propose to give it, but I cheerfully submit to any disposition of it which may be most agreeable to those for whose benefit it was prepared. With sentiments of the highest regard for the class, and for yourselves individually

I am, truly yours, &c.

Messrs. H. P. CRUTE, }  
H. J. KALFUS, and others, } COMMITTEE

H. M. BULLITT.

## INTRODUCTORY LECTURE.

---

GENTLEMEN:

Usage coeval with the institution of Schools of Medicine, and now uniformly observed, renders a *public lecture* by a member of the Faculty an appropriate, if not indispensable, mode of opening and closing the exercises of their sessions. It is in obedience to this time honored custom that I appear before you to night.

As it has been the practice to assign this duty successively to the different members of the Faculty, observing the order of seniority, most of my colleagues have already officiated in this capacity on previous occasions, and printed *introductories* or well applauded *valedictories* testify to the ability with which the duty has been heretofore discharged.

These addresses, whether preserved by publication, or handed down simply by tradition, exercise no inconsiderable influence in determining both the *popular* and the *professional* estimate of the relative merits of the different colleges.—They are therefore important antecedents in the history of every school, and as this Institution has now nothing to fear from the strictest scrutiny of this part of her record, I would gladly have shunned the present responsibility, as I am well convinced that I can add nothing to her reputation, whilst I may not only fail to meet the just expectations of her friends, but even leave an example unworthy the recollection of those who may succeed me. But as the circumstances, under which the duty has devolved upon me, preclude all chance of escape, I must proceed hopefully to its discharge, trusting that I shall find you, at least as indulgent as the Prince in the play, who charitably assures the rude actors who had “toiled their unbreathed memories” for his entertainment that

———in the modesty of fearful duty  
I read as much as from the rattling tongue  
Of saucy and audacious eloquence

In the name then of the Faculty of the Kentucky School of Medicine I welcome you to the enjoyment of all her privileges and benefits, and on behalf of our citizens whose presence here to night warrants the liberty, I welcome you to the hospitality of the city. But whilst I can safely assure you, that you will find the people of this city ever ready to extend to you the hospitable welcome for which Kentucky has long

been proverbial, it is my duty to admonish you that a proper attention to the claims of the noble mission upon which you have entered, will leave you but little leisure for the pleasures of society. You have undertaken a work of philanthropy which, if worthily pursued, will enable you to enrol your names amongst the benefactors of your race. You have chosen a field of labor, which if faithfully cultivated, will yield you an abundant harvest of all desirable possessions. Whether you live for the purposes of glory, or for the more ignoble ends of self, your profession will prove equally adequate to the satisfaction of every reasonable desire.

If as Cicero declares, true glory is the renown which arises from many and important services to one's friends or country, or the whole human race, no one has more or better opportunities than the physician, of encircling his brow with its brightest halo. In the exercise of an art which must from its very nature, bring you into relations of the closest intimacy with all descriptions of persons, you cannot fail to form friendships, based upon congeniality of tastes and accordance of mental and moral constitution, such friendships as "standeth stiffly in storms," and which, if properly cherished, will afford abundant opportunities of securing whatever of personal gratification or worldly renown may spring from many and important services to friends. The vulgar notion that daily familiarity with sickness, sorrow and death, tends to harden the feelings of physicians, and divest them of the more delicate sensibilities, and sympathies of our common humanity is utterly fallacious. It is true they learn to suppress their feelings and to sustain, in the language of the Poet,

The starts of passion and the reproach of pain,

But it is equally true to continue the quotation that

With hearts affected but with looks serene,  
Intent they wait through all the solemn scene,  
Glad if a hope should rise from nature's strife  
To aid their skill and save the lingering life,  
But this must virtue's generous effort be  
And spring from nobler motives than a fee.

And these nobler motives are the promptings of a common philanthropy, natural to the human mind, but improved and elevated by constant exercise, and rendered doubly earnest and energetic in many instances by the unavoidable friendships to which I have just referred. Your opportunities of doing the offices of friendship will be far more numerous than usually fall to the lot of men in other vocations, and so will you, far more generally than any other class of men, be entitled to whatever of renown properly appertains to their faithful discharge. "Homo sum, humani nihil a me alienum puto," the noble sentiment with which Terence electrified the Roman theatre may be emblazoned upon the shield of every good physician,

The more dazzling renown which results from services to one's country is equally within the reach of your profession. You may never be able to "sit in the hearts of the people," with the men whose achievements, in the field or the Senate, have made them the idols of an ephemeral popularity, but you may nevertheless have occasion to render services to your country not less valuable than such as give fame to the warrior or the statesman.

The public services rendered by the physician, whether on the field of battle or in time of peace, can never excite and dazzle the mind of a people, as do the gory victories of the conquering chieftain, or even the bloodless triumphs of the political leader; but discerning and just men will not fail to appreciate them and award them their due meed of praise. In the very infancy of the art he who chronicled in imperishable numbers the events of the Trojan war, did full justice to the surgical service of that eventful struggle, and when we reflect upon the limited number of followers which the art could boast at that early day, and the still more limited means of relief, we can scarcely doubt that he renders even more than justice when he sings

"The wise physician skilled, our wounds to heal,  
Is more than armies to the public weal."

But it is hardly possible to exaggerate the value of the service which has been rendered by our art in the wars of recent date. Napoleon whose experience in the field far surpassed that of any warrior of modern times, and whose wonderful sagacity in all things appertaining to the art of war excited the admiration of the civilized world, ranked the field services of the surgeons of his army with those of the most successful of his generals. He once said to the distinguished Larrey, "take better care of yourself my friend. There are many excellent generals in the army but only one Larrey;" and in the same spirit on another occasion he congratulates Baron Percy "upon having created a heroism of healing art not less admirable than that which belongs to the art of war," and promised him the choicest rewards that a grateful nation has in store for those who vanquish her enemies. And well did these noble men deserve words of approbation and encouragement, for to them and not to Napoleon, as is often erroneously claimed, is the world indebted for one of the most valuable improvements in the art of war. Prior to the occurrence of the grand military operations, in which these distinguished men achieved their laurels, it had been a dogma of the academies that in all cases of gun-shot wounds, or of serious mutilations received on the field, surgical operations should be delayed until reaction had occurred and subsided, and this usually required several



days. But in the campaigns of Napoleon, the genius of Larrey rising superior to the prejudices of his times, and yielding to the appeals of humanity, carried into the field, in the midst of the thickest of the fight, the means and appliances, to afford the necessary facilities for operating at the instant the injury was received, and of supplying the wounded with the comforts of hospitals and nurses upon the very ground of their disaster. But I must let him speak for himself, "Appealed to by the piercing cries which the feelings of pain extort from the wounded, left on the field of battle; attracted by the plaintive voice of the dying, and above all, desirous of rendering the rules to be pursued useful to their utmost extent, I never from the first commencement of the hostilities of that war, dreaded to carry the comforts of my art in the midst of the combatants. It was then that I created those light itinerant hospitals which have so much reduced the number of victims to the deadly blows of the fatal sisters, and it was then also on the fields of glory and carnage that I became convinced of the necessity of operating immediately upon those whose limbs had been mutilated or destroyed by projectile weapons; without the prompt application of this maxim how many generous defenders would have met the fate of those soldiers, who in previous wars were not till some time after, carried from the field of battle, and even then, only when the hospital wagons, heavy at that time, and more or less encumbered in their movements, had arrived on the spot in order to pick them up and to remove them to the hospitals, the only place where operations at all important were performed." Thus did this illustrious philanthropist, aided by accomplished associates, effect an improvement in the art of war to which the world is indebted for the preservation of thousands upon thousands of valuable lives; and who can tell to what extent the valour of the soldier is sustained or his heroism inspired by the knowledge of the fact that he is accompanied into action by skilful surgeons, prepared to afford all who may fall in their country's service every assistance which humanity can suggest.

Such is the service which you may be called upon to render your country, and no one can tell how soon. There now hangs lowering over the eastern continent a sombre cloud which diplomacy has thus far failed to dispel, and even the next steamer may bring news of the commencement of a conflict which will involve all Europe in the most terrible revolution she has yet experienced; and here in the west the fiery elements are already gathering upon the Mexican border, and such is the intensity of the gaze with which young America regards the Queen of the Antilles that we can almost hear the "voice of battle on the breeze."

It is to medicine again that the present century is indebted for some of its most important civil reformatations. The improved modes of providing for and managing the Insane, and the more rational regulations in reference to Quarantine, are amongst the most important civil reformatations of modern times, and for these reformatations which have conferred inestimable benefits wherever they have been adopted, the nations are almost exclusively indebted to the medical profession.

It is but a few years since the unfortunate lunatic was treated as a malefactor rather than as a sick man. Instead of being committed to the charge of skillful physicians and humane nurses, to be treated and cured and restored to his friends and his country, he was consigned in chains to the dungeons of a mad house, there to linger out a miserable existence, a burthen to himself and a perpetual charge to his country, the victim of an inhuman law, and that law executed by ignorant and heartless jailors, "whose acts of cruelty were not surpassed by the barbarous scenes which have given so sombre a fame to the 'Bastile or the Tower.'" It was no uncommon thing for these unfortunate subjects of disease, guiltless of even the suspicion of wrong-doing, to be kept immured in irons and neglected in the ravings of their madness, until the marks of the galling and inhuman fetters were indelibly worn into the very flesh and bones of their innocent limbs. But I need not rehearse the appalling wrongs of the lunatic. It is sufficient for my present purpose simply to refer to these revolting memories, that I may bring out in bold relief the priceless value of the service, which has been rendered to the cause of our common humanity, and to the civilization of the age by the bold inductions and the moral heroism of such men as Pinel and Conolly.

There is scarcely an event in the history of modern times which equals in moral grandeur Dr. Conolly's triumphant demonstration of the practicability of managing the insane without the use of physical means of restraint. As Physician to the Hanwell Lunatic Asylum, containing near a thousand inmates, he satisfied himself that instruments of restraint and of torture were equally useless and injurious, and that the lunatic is not only more safely governed, by moral than by physical force, but that his chances of recovery are vastly increased by dispensing with straight-waistcoats and chains, and removing from about him, all appearances of forced confinement.—Once settled in this conviction he did not rest, until by dint of untiring solicitation and perseverance, he obtained from the overseers of the asylum the privilege of proving its soundness by actual experiment, and having obtained it, we find him in defiance of the apprehensions of the timid, and the dire predictions of conservatives, boldly taking

upon himself the responsibility, of putting a thousand lunatics on parole, under circumstances involving his own ruin in the event of a single serious accident. Fortunately, for the cause of science and humanity, he had so guarded against every possible danger as to render the experiment completely and triumphantly successful. So far from any serious accident there was not even an untoward occurrence to throw doubt upon the issue, and from that time to the present there has been but a single instance of disaster in any of the numerous asylums in which the example of Hanwell has been followed, and that occurred recently at Bethlehem Hospital under the management of men who had bitterly opposed the innovation, and upon whom indeed it was forced by the commissioners in lunacy, and this single act of violence was the act of a returned patient, who carried back with him a vivid recollection of cruelties to which he had been previously subjected. Under the operation of this wholesome reform which has now been adopted in most of the countries of Europe, and almost if not quite universally in this country, the proportion of recoveries amongst this unfortunate class of patients, has been increased in an almost incredible degree; and does not such an achievement entitle its author and his collaborators in a preeminent degree to the renown which results from services to one's country.

Who that has a human heart can contend that he, who in the name of science and humanity, entered those miserable prisons, miscalled hospitals, broke asunder the iron bolts that secured the doors of their contracted and murky cells, tore the manacles from the chafed and scarred limbs of their wretched occupants, expanded the dark, narrow, ill ventilated dungeons, into spacious, well lighted and well aired apartments, and replaced the harsh and brutish overseer with humane and attentive nurses, is entitled to less of the gratitude of his countrymen, than he even who bore off the trophies of victory from the bloody field of Waterloo. Or what country that properly appreciates the ends of government, does not recognise the services which relieved commerce from the shackles of an oppressive and cruel quarantine, and diffused the blessings of a sound system of public and private Hygiene, as of equal value with the best that have been rendered in the Senate or upon the Bench.

Again, if you will but labor with suitable zeal and industry, in turning up the untilled soil of your profession, you may reasonably hope to succeed in bringing to light new facts, and truths hitherto concealed from the gaze of science, whose discovery may confer benefits upon the whole human race, not less glorious than those which followed the great practical discovery of the illustrious Jenner, or the physiological revelations of Harvey and Hunter. It is only necessary to enu-



merate some of the valuable additions to our knowledge, which have been realized in comparatively recent times, to show how easily great truths may be overlooked by even great minds. It remained for the science of the present century to discover the active principles of remedies, the value of auscultation and percussion as means of diagnosis, the application of anaesthetic agents in depriving surgery of its terrors, and other aids and appliances too numerous to mention. And it cannot be doubted that we are upon the threshold of many new truths not less valuable than those to which I have referred, and I sincerely trust it may be the lot of some, if not all of you to immortalize, your names by contributing to their elucidation.

But to acquire renown in any of the various modes which I have indicated will cost you days of labor and nights of toil. If you would so master your profession as to make it subservient to the lofty purposes for which it is designed, you must exercise the most untiring and ceaseless devotion in the pursuit of its wholesome truths. Labour is essential to success in all earthly enterprises, and in none is it more necessary than in that in which you are now engaged.

I would, therefore, fain believe that you have, one and all, brought with you to this hall, a firm and steadfast and inflexible determination to spare no effort to qualify yourselves, to fulfil worthily the mission which is before you; and if so, the study of medicine must soon become a labour of love. The mind must be strangely constituted, that fails to find deep and abiding interest in the investigation of the medical sciences, presenting, as they do, themes for contemplation, so various and diversified, as to afford entertainment to every variety of taste and food for every modification of mental appetite.

The study of medicine is the study of man, the most complicated and wonderful as well as the most perfect of terrestrial creations. The human body indeed is of itself a microcosm, offering within its circumscribed sphere, the most beautiful examples of the operation of every natural law. It presents itself to our consideration in the fourfold relation, of first a natural body, subject like all material substances, to be acted upon by the physical forces, which regulate the status of the material world. In the second place, it is an organized body endowed with life, and possessed of the properties and forces which distinguish organic from inorganic bodies. Again, it is an animal body offering for our consideration those remarkable endowments and capacities by which animal life is distinguished from organic or vegetable life; and lastly we have to contemplate and study it, in its human capacity, invested with the image of its creator, and exercising dominion over the animated world, the

To understand and appreciate a creation so complicated in structure and arrangement, endowed with such wonderful properties and capacities, and maintaining such various and deversified relations, with surrounding objects, you will find it necessary to study more or less thoroughly nearly all branches of human knowledge.

To apprehend the operation of physical and chemical forces within the system, and estimate its relation to these forces as they operate from without, you must become familiar with natural philosophy and chemistry. In studying the actions of the different parts of the organism, whether in health or disease, you will constantly encounter these forces, working sometimes in unison with the vital powers, but often acting in direct antagonism to them. Indeed many of the most important functions of the body, hold such intimate relations with the forces of chemistry, and physics, as to render any attempt to understand them utterly futile, without some previous acquaintance with these branches of science. The relationship of dependence and antagonism between digestion and chemical action are so various and intimate, that this important function was not at all understood until chemistry was forced, by the genius of her more modern disciples, to shed the required light upon its mysterious processes. And it is equally true that the functions of absorption and circulation, were never properly appreciated until they were studied in their cor-relations with certain mechanical or physical forces, by whose auxiliary or opposing action they are constantly influenced. And moreover, these forces have such important causative relationships with the occurrence and cure of disease, as to render them inseparable from the study of pathology and therapeutics.

Again, if you would adequately appreciate its organic properties and powers you must explore the entire organic kingdoms. It is not practicable for us to gain a sufficient knowledge of these properties and powers from the study of the human body alone, nor indeed from the study of the whole series of animal existence. We must call to our aid the modern microscope and with its assistance, carry our investigations back to the earliest dawning of vital energy, as it developes itself in the *red-snow*, or the *gory-dew*, or other equally simple plants, and by the study of their primitive elements, endeavor to find out the original type of organic existence, and the earliest material source of organic power. It is only by investigations thus commenced, and prosecuted upward through the ascending scale of developement, that we can hope to make out the distinctive characters of vital actions. Beginning with the simplest organic form, and determining first, its mode of developement and its rules of action, we gain the knowledge necessary to prepare us for the suc-

cessful elucidation, of the modes of evolution and the principles of action, which obtain amongst the more elevated. By means of investigations thus conducted, physiologists have arrived at the fundamental truth, that the primitive form of every living thing, as well as the ultimate *organic* elements of all vitalized structures are strictly identical.

By means of the microscope it has been demonstrated that the simplest vegetable, consists merely of a cell or an aggregation of cells, each one of which has an independent life; and this simple organic form has been traced upward, through the entire scale of organized existence. Whether we make our observations upon the protophyte, which vegetates and perishes almost within the same instant, of time, or upon the majestic oak which has defied the storms of a thousand winters; upon the protozoon, or humblest animal, millions of which may inhabit a single drop of water, or upon that most wonderfully endowed of all organic structures, the human brain; we find this simple element everywhere and always present as the potential agent of vital power. The distinguished naturalist, Buffon, nearly a century since, suggested the beautiful conclusion that "in the creation of animals the superior Being seems to have employed only one great idea, and at the same time to have diversified it in every possible manner, that man might have an opportunity of admiring equally the magnificence of the execution and the simplicity of the design." Recent physiological investigations have not only tended to confirm this conclusion, but seem even to justify the broader inference, that the same great idea has been employed in the creation of vegetables also, and hence the science of the present day maintains and teaches that organic composition is a unit; or at least that organic structures are so uniformly modelled, in conformity to one general plan, as to authorize the conclusion that unity of composition, is fairly predicable of all organized fabrics, and that there is a common law or force governing and regulating all organic evolution. And why may not this be as true of organic, as it unquestionably is, of inorganic nature. We know that the great author of the universe has employed the same agency to determine, and control the fall of an apple, which he uses to regulate the majestic revolutions of the *planets*, or the eccentric wanderings of the comets; or as has been well and beautifully expressed by the poet, that

"That very law which moulds a tear,  
And bids it trickle from its source;  
That law preserves the earth a sphere,  
And guides the planets in their course."

The diversity of form under which organic matter exhibits itself, is not more adverse to the idea of unity of composition, than is the variety of form, and condition, which certain inor-



ganic elements, may be made to assume under different modes of treatment, to the fact of their chemical identity. Carbon for instance, under different circumstances of extrinsic influence, assumes without losing its chemical identity, the various forms of charcoal plumbago and the diamond; and it is not improbable that organic matter, under the influence of different external forces, or of varying degrees of intensity, in the operation of one or more of these forces, is capable of assuming its countless variety of forms, without losing its essential identity of composition.

But, even after you have acquired a full knowledge of the laws of composition, and of action, which are common to the organic kingdoms; you may nevertheless, have most inadequate conceptions, of the properties and capacities of your own bodies. It will still remain for you to study, the characters, and qualities, and functions, by which man is elevated above the vegetable, and enabled to take his position at the head of the animal series; and here, you are introduced to the most interesting, as well as the most intricate questions in material Physiology. When we turn our attention from the realm of organic life, to the contemplation of the distinguishing attributes of animal existence, we find in the nervous system, a provision for maintaining a sensible relationship with surrounding objects, whose wonderful endowments are equally calculated to excite our admiration, and to tax to the uttermost our limited means of research. Clothed with a power which is found, no where else in nature, this system exercises functions, which are altogether peculiar and distinctive, and which can only be studied in connection with the special forms of matter in which they are inherent. No analogies, drawn from the inorganic or the vegetable kingdoms can aid us in the elucidation of the mysteries of nervous action, nor can we discover any cor-relations, between nervous force and the great physical agents, heat, light and electricity which throw any important light upon its nature. All that has been said and written in reference to the identity of electricity, and the nervous power, is purely conjectural and entirely destitute of substantial foundation. The limited knowledge which we now possess in reference to this power has been derived exclusively from observation and experiment, made upon the class of living bodies which are provided with the faculty of taking cognizance of surrounding objects, and agencies; and it is only by such observation, and experiment that we can ever hope to dispel the darkness by which its laws of action are concealed from the scrutiny of science. If you have any ambition, to become instrumental in shedding new light upon the difficult, but most interesting and important questions, of the nature of nervous power, and the laws which govern its diversified manifestations, you must begin your



researches with the humblest beings, in which the system exists in a rudimentary form, and prosecute them through its various stages of progressive developement, up to its utmost complicated and perfect form as we find it in the human body. Such a course of study, indeed is necessary to enable you to appreciate properly, and render available what is already known of these important questions; and unless you are prepared to explore the whole field of comparative zoology, both anatomically and physiologically, you need not hope to become masters of your vocation, much less the guiding lights of your profession. True you may receive facts, and generalizations, at second hand, and make them available for many of the practical purposes of your art, and this indeed you will be compelled to do, to a certain extent; but I trust you will never rest satisfied until you have thoroughly weighed all the facts of science, and tested the correctness of every important generalization, in the crucible, of a severe and rigorous logic.

But even after you have thoroughly studied the material body, and fully compassed all of its relations to other natural bodies, your labour is still unfinished. You may be familiar with its connection with, and dependence upon the forces of inorganic nature; you may understand every thing relating to its organic life, and be fully acquainted even with the whole series of phenomena which constitute its animal existence, and it still remains for you to make out and comprehend the nature and habitudes, of the exalted attributes inappreciable to sense, which constitute it a man. He is distinguished, it is true, from other living things, by many peculiar corporeal endowments. He has, for instance, Hands, which are certainly far more perfect than the prehensile members of any other being; he has the lofty erect form, and an upraised countenance, that he may, in the language of Cicero, by 'contemplating the skies attain a knowledge of the Gods,' besides other peculiarities of form and organization; but these alone would only constitute him a higher order of animal. The distinguishing attributes of the man are not to be sought in his corporeal peculiarities, although these are admitted to be numerous and distinctive. It is only when we come to examine his mental and psychical endowments that we recognise the essential characteristics of his humanity; and if you would become medical philosophers, you must not shrink from the patient investigation of the capacities and faculties which spring from these endowments, even though it lead you into the tangled intricacies of mental metaphysics, or force you to trench upon the sacred precincts of Theology. If there is a pursuit on earth, which above all others, exacts of its followers a thorough familiarity with all the protean forms in which mental and moral power are man-

ifested, it is the profession of medicine. Indeed, the first thing which arrests the observation of the physician on approaching the bedside of the sick, is the condition of the patient's mind, for the question which he must first decide is as to the competency of the patient, to give a true account of himself; whether his natural capacity is such as to qualify him for the adequate exposition of his previous medical history, or his present subjective experiences; whether his mind originally clear may not be impaired by his present disease, or perverted by unreasonable prejudices, or confused by the thick coming fancies which spring from a fevered brain.

Often the last thing which claims his attention when the brain

Doth by the idle comments which it makes  
Foretell the ending of mortality,

is the testamentary competence of the dying patient.—Throughout the progress of every case, whether it tend to a fatal or a favourable issue, it is due to the patient, that the medical adviser watch over his feelings, control his imagination and direct his thoughts. In his words, manner and countenance he possesses agents of infinite power, which he may, if ignorant and heartless, employ in such manner as to intensify suffering, protract the duration of disease, diminish or even destroy the chances of recovery; but which in the hands of an accomplished physician may be not only so used

“As to make languor smile and smooth the bed of death,”

but even as to avert in many instances impending perils from which there may be no means of escape, save such as are afforded by the hope which the Doctor alone can inspire. To use this power judiciously, it will be necessary for you to qualify yourselves to detect readily, and adequately appreciate, not only the natural mental faculties, but the modifications and perversions of intellectual and moral phenomena which are engendered by disease. If I felt called upon to give instances, in which a knowledge of mental philosophy will become essential to the discharge of your professional duties, I should scarcely know where to begin or when to stop. You will be consulted by anxious parents in reference to the perverted tastes, immoral propensities and the intellectual deficiencies, peculiarities or precocities of childhood. In the ripeness of manhood when unimagined facts, and stern realities press heavily upon the fancy, you will be required not only to “minister to minds diseased,” but to testify in courts of law, touching questions of intellectual soundness, and moral responsibility, in cases in which life, liberty and the rights of property may be involved, and when you must utter words of wisdom, or become the culpable authors of cruel and irreparable wrong. And when the way of life “is fallen into the sear and yellow leaf,” you must be

the witnesses, whose testimony will decide the question, whether the last scene of all which ends in second childishness is so overcast and clouded by mere oblivion, as to disqualify the mind for the transaction of business, or for the final disposition of worldly effects,

Thus are you conducted in the legitimate pursuit of your profession, not only into the academic groves, hallowed by the prelections of a Plato, or the homilies of a Socrates, but also into the bewildering inns of court, where unless you are masters of yourselves and richly endued with appropriate knowledge, you will find your scientific pretensions speedily reduced as upon a procrustean bed, to such dimensions as may suit the purposes of the occasion. You will need under such circumstances, not simply a familiar acquaintance with the habitudes of mind, you will require also some knowledge of certain branches or jurisprudence, which are so entwined with our profession as to be dependent upon the light which it sheds upon the devious pathway of justice for a just or safe practical application.

Finally, it will be constantly demanded of you to determine upon the propriety of suffering the mind of your patient, in view of approaching danger or impending desolution, to be directed to the contemplation of the great question of life beyond the grave; and this is often a most difficult, delicate and responsible task. The clergyman, however prudent and discreet, cannot always be safely admitted to the chamber of the sick, or even to the couch of the dying, and it will devolve upon you to decide for or against him. Full of pious zeal and unaffected enthusiasm in the cause of his holy mission, and rightly regarding man's future happiness, of infinitely higher importance than even the preservation of his life, it is often difficult for him to conceive of any possible state of case which could render his visits dangerous or objectionable. And hence your refusal to allow his attendance, however imperative, the duty of refusal may be, is liable to be tortured into evidence of indifference, on your part, to the sacred truths of religion. It is doubtless owing to the frequent existence of a necessity for such refusal, that the profession is indebted for the charge of infidelity, which is so frequently preferred against it; a charge as unjust as the thing itself is impracticable. No study is so well calculated as that of medicine to remove the doubts and difficulties which obstruct the belief in the fundamental doctrines of theology. No man can study the human body in all of the various relations and connections, in which I have shown, it must be studied by the physician, without finding abundant reasons for acquiescing in the beautiful sentiment of Sir Thomas Browne, himself a physician of rare accomplishments.—“There is surely a piece of divinity in us, something that was



before the elements, and owes no homage unto the sun." No one can ascend the pure stream of the medical sciences, without finding, scattered everywhere, around him, the most convincing evidences of the presence of an invisible spirit of infinite wisdom and power, which superintends and directs all the operations of nature.

Doubtless, there have been scoffers and infidels in the profession, and such I freely admit can never realize the importance of the issue, which is submitted to their decision, when appealed to by the friends of the dying, for timely notice of the arrival of the proper moment for urging the necessity of a preparation for another state of existence. The physician whose mind is tainted with infidelity, or inclined to scepticism, can never properly discharge his duties, on such trying occasions. No one indeed who has not learned from unbiassed observation, or from his own experience, or from unprejudiced attention to the lessons of others, to appreciate the benign influences of religion, in hours of suffering and danger, or at the moment of death, can be prepared to give his patients the benefits of a therapeutical agent which may be made to exercise more or less influence in all cases, and which in some instances will be found, if judiciously regulated, to aid most efficiently, not only in quieting and consoling the troubled mind, but even in controlling disease, and protracting and saving life. Before you can be prepared to render all the resources of your profession available, you must understand that the emotions and passions, the imagination and the reason, the moral and religious sentiments of your patients, are therapeutical agents which you may often employ with equal, nay greater advantage than the grosser material, of the pharmacopoea; and unless you are qualified to bend, regulate and direct these psychological remedies, you must prove incompetent to the discharge of many of the most important functions of your ministry. It is in the use of these means that you will often find the judicious clergyman a most potent and valuable ally, if not a better physician than yourselves. As conscientious and wise advisers, you should never, therefore, wantonly reject his timely assistance; on the contrary it will be best, in all instances, to make him the messenger of unwelcome news. Your first duty is to cure your patient and save his life; failing in this, your next care should be to prolong his existence. You should never therefore in person pronounce upon him the sentence of death, and thus deprive him of the last gleam of hope, which is often the very breath of his body. This unwelcome task you should commit to the clergyman or some pious friend, in whose discretion you can repose confidence.

The clergyman or the friend can perform this sad office, (to quote the language of another,) "without destroying his



hopes, for the patient will still believe that he has an appeal to his physician beyond their fears; whereas if the physician lay open his danger to him, however delicately he may do this he runs the risk of appearing to pronounce a sentence of condemnation to death against which there is no appeal, no hope."

As you would avoid, therefore, bringing upon your profession the unjust reproach of infidelity, and as you would acquit yourselves blameless in all of your relations with the sick, study the influences of religion upon the mind, and through it upon the body, that you may never be deterred by unreal and fanciful fears from admitting to your council, your best ally and supporter, the faithful and enlightened clergyman.

From this cursory review of the nature and relationships of your profession, you perceive that she levies contributions from all departments of human learning. From chemistry and natural philosophy she draws the light which reveals and renders intelligible the chemical and physical phenomena of the living body. She levies upon botany and vegetable physiology for facts and principles, which contribute to a better understanding of the laws of development, and the functions of organic life. From zoology and comparative anatomy she derives valuable contributions to her knowledge of morphology, and the functions of the life of relation. She draws upon her knowledge of mental Philosophy, Theology and Law for essential assistance in the discharge of some of her most difficult and responsible duties. And whilst she explores earth, water and air in her efforts to discover and control the causes of disease, she sends her handmaids to the four quarters of the globe to collect the agents with which she wages against it a war of extermination.

Guided by light derived from the science of botany, her colabourers upon the rugged slopes of the Andes single out from the countless family of cinchona trees, the particular species which yields the more valuable barks, and from these chemistry separates the essential principle, which in the hands of skilful physicians gives the blessings of renewed health to countless multitudes in all parts of the earth. For another of her agents she carries her search amongst the snow capped mountains of middle Asia, or tracks the Siberian exile into the frozen plains bordering upon the Arctic Ocean.

For some she penetrates the thick forest of barbarous Africa or cruises amidst the spicy islands of the Indian Ocean, for others she taxes the labour of the followers of the crescent, in the fertile fields of Turkey, the classic delta of the Nile or the poetical gardens of Persia. Even in the sea weed, "floating upon the waves or rolled high upon the shore," she finds a violet tinted essence with which she gives health to the scrofulous and hope to the consumptive; and though she no longer invokes the aid of the stars, or courts the influence of the in-

constant moon, she draws from the earth, and the clouds, the subtile lightning, subdues it to her purposes and sends it thrilling through the fibres of the body, a harmless and valuable remedy.

Such are some of the attributes of the profession in whose service you have enlisted. I need not tell you that it is worthy of your utmost zeal and devotion.

The labour which you may bestow upon it will be expended in a glorious service, and now is the time for you to construct the foundation upon which you may rear hereafter a superstructure of professional excellence, which will secure you the respect, the admiration and the gratitude of the great and the humble, of the proud occupants of the palace, as well as the lowly inmates of the cottage. But if you neglect your present opportunities and fail to build such foundation, you need never hope to raise yourselves to any high standard of excellence. Your future is in your own power. You may waste advantages and opportunities, and move throughout life in the "narrow sphere of a mere bread earning craft," or you may improve them and lead the van of a most exalted dignified and honorable calling. "*Quisque suæ fortunæ faber*" is not less true at present than it was in the days of ancient Rome. You must be the architects of your own fortunes. We can afford you facilities which will be instrumental, in lightening your labour, and expediting your progress, but unless you force the energies of your minds into active exercise and so discipline them as to render them obedient to your will, the advantages of schools and colleges will prove of little or no avail. We are told by the distinguished scholar and statesman of New England, whose death was so recently the occasion of national lamentation, that "Costly apparatus and splendid cabinets have no magical power to make scholars. In all circumstances, as a man is under God the master of his own fortune, so is he the maker of his own mind; the creator has so constituted the human intellect that it can grow only by its own action, and by its own action it most certainly and necessarily grows." You must therefore keep your faculties in constant action, using your books and the prelections of your teachers merely as helps in the prosecution of the work which must be achieved ultimately by your own exertion. And after you have passed the ordeal of the college you must remember that your work is but fairly begun. If you would become conspicuous or noteworthy, in the great race of life you must regard the acquisitions of your pupilage as but the germs of future excellence, to be developed only by diligent and untiring cultivation. No amount of genius can relieve you from the necessity of labour. 'Tis the "primal curse" from whose penalty no man, however highly gifted can stand absolved. No man ever gained an

exalted intellectual position without labour. No man ever presided long at the head of any great enterprise without vigilance and energy, and sleepless perseverance.

It is emphatically true of your profession, that it has no resting place, you must move onward or recede. If you would maintain a leading or a respectable position amongst her more meritorious disciples you must keep the straight path of honorable exertion; keeping ever before you the important truth that:

The heights by great men reached and kept,  
Were not attained by sudden flight;  
But they, whilst their companions slept,  
Were toiling upward in the night.